

## NOAA In Your State

# Missouri

***NOAA is an agency that enriches life through science. Our reach goes from the surface of the sun to the depths of the ocean floor as we work to keep citizens informed of the changing environment around them. From daily weather forecasts, severe storm warnings, and climate monitoring to fisheries management, coastal restoration and supporting marine commerce, NOAA's products and services support economic vitality and affect more than one-third of America's gross domestic product. NOAA's dedicated scientists use cutting-edge research and high-tech instrumentation to provide citizens, planners, emergency managers and other decision makers with reliable information they need when they need it.***

***The following is a summary of NOAA facilities, staff, programs, or activities based in, or focused on, your state or territory: Starting with highlights, then by [congressional districts and cities or towns](#), and then [statewide programs](#).***

### **Highlights of NOAA in Missouri**

<a href="#">Missouri Basin River Forecast Center</a>	Kansas City/Pleasant Hill	MO-4
<a href="#">Central Region Headquarters</a>	Kansas City	MO-6
<a href="#">Training Center</a>	Kansas City	MO-6
<a href="#">Central Regional Climate Services Director</a>	Kansas City	MO-6

The state of Missouri also has three Weather Forecasting Offices, one Regional Climate Services Director, one Science on a Sphere® exhibition.

### **Weather Forecast Offices**

St. Louis MO-2

Kansas city/Pleasant Hill MO-4

Springfield MO-7

**National Weather Service (NWS) Weather Forecast Offices (WFO)** are staffed 24/7/365 and provide weather, water, and climate forecasts and warnings to residents of Missouri. There are 122 WFOs nationwide of which three are in Missouri. Highly trained forecasters issue warnings and forecasts for weather events, including severe thunderstorms, tornadoes, hurricanes, winter storms, floods, and heat waves to the general public, media, emergency management and law enforcement officials, the aviation and marine communities, agricultural interests, businesses, and others. Information is disseminated in many ways, including wireless emergency alerts, social media, weather.gov, and NOAA Weather Radio All Hazards. Each WFO has a Warning Coordination Meteorologist who actively conducts outreach and educational programs that strengthen working relationships with local partners in emergency management, government, the media and academic communities. Forecasters provide Impact-based Decision Support Services (IDSS), both remotely and on-site during critical emergencies such as wildfires, floods, chemical spills, and major recovery efforts. To gather data for forecasting and other purposes, NWS WFO staff monitor, maintain and use Automated Surface Observing Stations and Doppler Weather Radar. In addition to the WFOs, NWS operates specialized national prediction centers and regional headquarters throughout the U.S. for a total of 168 operational units. Over 85% of NWS' workforce is in the field. For current Missouri weather, visit [www.weather.gov](http://www.weather.gov) and, on the national map, click on the relevant county or district.

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### **Science On a Sphere®**

Kansas City MO-5

**Science On a Sphere (SOS)** is a room-sized global display system that uses computers and video projectors to display planetary data onto a six-foot diameter sphere, analogous to a giant animated globe. Researchers at NOAA developed Science On a Sphere® as an educational tool to help illustrate Earth System science to people of all ages. Animated images of atmospheric storms, climate change, and ocean temperature can be shown on the sphere, which is used to explain in a way that is simultaneously intuitive and captivating what are sometimes complex environmental processes. It is located at the Science City at Union Station in Kansas City.

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#### **MO-2**

##### **St. Louis**

**National Weather Service (NWS) - Weather Forecast Office**- See [Page 2](#) for details.

#### **MO-4**

##### **Kansas City/Pleasant Hill**

**National Weather Service (NWS) - Missouri Basin River Forecast Center**

Co-located with the NWS Weather Forecast Office in Pleasant Hill, the NWS Missouri Basin River Forecast Center (RFC) performs continuous river basin modeling and provides hydrologic forecast and guidance products for rivers and streams

for the U.S. portion of the Missouri River basin from its headwaters in Colorado, Wyoming, and Montana down to the confluence with the Mississippi River and the U.S. portion of the St. Mary River basin in Montana. These products include forecasts of river stage and flow, probabilistic river forecasts, reservoir inflow forecasts, hourly precipitation estimates and forecasts, spring flood outlooks, and flash flood and headwater guidance. Some of the RFCs in the western and central U.S. also provide water supply forecasts. RFCs work closely with local, state and federal water management agencies, including the U.S. Army Corps of Engineers, U.S. Bureau of Reclamation, and U.S. Geological Survey, to provide water and flood information for critical decisions (aka Impact-based Decision-Support Services or IDSS).

**National Weather Service (NWS) - [Weather Forecast Office](#)**- See [Page 2](#) for details.

#### **MO-5**

##### **[Kansas City](#)**

**Acquisition and Grants Office (AGO) - [Eastern Acquisition Division](#)**

The Acquisition and Grants Office provides financial assistance and acquisition services for NOAA by overseeing and implementing all processes related to contracts and grants.

**National Weather Service (NWS) - [National Reconditioning Center](#)**

This national center serves as the primary repair depot and inspection station for all National Weather Service equipment. In addition, it serves as a warehouse for new stock, repair equipment, and spare parts.

**Office of the Chief Administrative Officer (OCAO) - [Eastern Region](#)**

The Office of the Chief Administrative Officer (CAO) provides comprehensive facility construction and lease acquisition management support services in support of NOAA programs located in the eastern United States, specifically in the areas of:

- Real estate (lease management, real property acquisitions);
- Construction project planning, design and engineering; and Facility project management.

**Office of the Chief Information Officer (OCIO) - [Service Delivery Division](#)**

The Service Delivery Division provides a suite of IT services to support NOAA's mission. Their work includes IT infrastructure design and maintenance, network and server management and administration, desktop configuration and maintenance, application and system design and implementation, and IT security.

**Office of Oceanic and Atmospheric Research (OAR) - [Science On a Sphere®](#)**- See [Page 2](#) for details.

**Workforce Management Office (WFMO) - [Kansas City Office](#)**

The Workforce Management Office in Kansas City provides nationwide consultative services to the National Weather Service with respect to talent acquisition and strategic workforce planning. The HR Business Partners and HR Business Advisors ensure consistency of service, compliance, best practices and knowledge sharing among the team members. The Office manages the workload and resources to account for peak demand, vacancies and talent acquisitions strategies to meet new mission requirements, and escalates these and other issues as necessary to leadership.

**NOAA Office of Education - [Environmental Literacy Program](#)**

NOAA's Environmental Literacy Program (ELP), administered by the Office of Education, provides grants and in-kind support to advance NOAA's mission through formal (K-12) and informal education. In Missouri, ELP supports the Science City at Union Station (Jackson), which has a permanent exhibit featuring NOAA's Science On a Sphere (SOS) and is a member of NOAA's SOS Users Collaborative Network (SOS Network). The SOS Network connects over 150 science

education institutions worldwide to the latest NOAA data as part of a focused effort to increase environmental literacy at all ages.

#### **MO-6**

##### **Chillicothe**

##### **Office of Oceanic and Atmospheric Research (OAR) - [U.S. Climate Reference Network](#)**

The US Climate Reference Network (USCRN) is an operationally viable research network of more than 138 climate stations that are deployed nationwide. Data from the USCRN are used in various climate monitoring activities and for placing current climate anomalies into an historical perspective. The USCRN provides the United States with a reference network that contributes to an International network under the auspices of the Global Climate Observing System (GCOS). ARL/ATDD manage the USCRN in partnership with NOAA's NESDIS/NCEI.

##### **Kansas City**

##### **National Environmental Satellite, Data, and Information Service (NESDIS) - [National Centers for Environmental Information](#) - [Central Regional Climate Services Director](#)**

NOAA's six Regional Climate Services Directors (RCSDs), which are part of NESDIS' National Centers for Environmental Information, support the development and delivery of a wide range of place-based climate science and information products and services to help people make informed decisions. RCSDs regularly communicate with stakeholders about climate information needs, and help build and strengthen active partner networks with public and private constituents. They play a primary role in integrating the work within NOAA, and among its partners, engaged in developing and delivering climate services at the regional level. These efforts serve to increase the value of climate information to users and support more efficient, cost-effective delivery of products and services.

##### **National Weather Service (NWS) - [Central Region Headquarters](#)**

Co-located with the NWS Training Center and the NWS Aviation Weather Center, the NWS Central Region Headquarters is the administrative and support center for 38 NWS Weather Forecast Offices, five aviation-focused NWS Center Weather Service Units, and two NWS River Forecast Centers covering 14 states (Missouri, Kansas, Nebraska, Iowa, Illinois, Indiana, Michigan, Minnesota, Wisconsin, Kentucky, North Dakota, South Dakota, Colorado and Wyoming). Services provided by a regional headquarters to local NWS offices within the region include scientific support and development, program management and guidance, field support for new program implementation, budget support, and employee recruitment and assistance. The headquarters is also the home office of the Central Region Director, who oversees the management and administration of the NWS entities listed above, as well as other region-level officials and program managers.

##### **National Weather Service (NWS) - [Training Center](#)**

The National Weather Service Training Center (NWSTC) is a large part of the NWS Office of the Chief Learning Officer (OCLO). The NWSTC is the primary training facility for the NWS with other training units located in Boulder, CO and Norman, OK. The NWSTC provides professional and technical training to enable NWS employees to reach optimum performance in present assignments and future responsibilities. Its goals are to teach job-specific, communication, leadership and practical skills for all employees; teach latest scientific and technical concepts to support research to operations; emulate the NWS working field environment in an educational setting; and provide students the ability to work and experiment with concepts or equipment offline as part of learning. The NWSTC is responsible for all maintenance training, and its laboratories contain the same systems that are in operation at field offices, including the NEXRAD radar and the Automated Surface Observing System (ASOS), and the Advanced Weather Interactive Processing System (AWIPS). NWSTC also provides multi-agency and international training in maintenance of Doppler radars and surface observation systems, and leadership and management. The NWS Decision Support Service Training Division and NWS Leadership Academy are components of NWSTC, paving the way to the NWS of the future. The training facility also offers

summer workshops in meteorology for educators. Each summer, the NWSTC works with the American Meteorological Society to conduct a program for K12 teachers. Participating educators are selected from a national panel of applicants to attend the two-week session.

**National Weather Service (NWS) - [Aviation Weather Center](#)**

One of the NWS National Centers for Environmental Prediction, the NWS Aviation Weather Center (AWC) enhances safety by issuing accurate warnings, forecasts and analysis of hazardous weather for aviation interests. AWC meteorologists identify existing or imminent weather hazards to aircraft in flight, and create warnings for the aviation community. The AWC also originates two-day forecasts of weather conditions that will affect domestic and international aviation. The AWC is co-located with the NWS Central Region Headquarters and the NWS Training Center.

**NOAA Commissioned Officer Corps (NOAA Corps) - [Executive Officer, Aviation Weather Center](#)**

The NOAA Commissioned Officer Corps stations an officer at the National Weather Service Aviation Weather Center in support of monitoring and forecasting operations. This officer performs a variety of administrative functions, including liaising with the Federal Aviation Administration, World Meteorological Organization, International Civil Aviation Organization, and UK Met Office World Area Forecast Center; working with a wide range of NWS programs to develop and coordinate policy and procedures for aviation weather operations; development or review of assessments, analyses, summaries, reports, plans, or proposals directed toward national aviation weather services; contributing to outreach programs to end-users and meetings with the end-user community; and supporting the Aircraft Operations Center operational flight schedule as directed. This officer is a critical link between the Office of Marine and Aviation Operations and the National Weather Service.

**[MO-7](#)**

**[Springfield](#)**

**National Weather Service (NWS) - [Weather Forecast Office](#)**- See [Page 2](#) for details.

**[Joplin](#)**

**Office of Oceanic and Atmospheric Research (OAR) - [U.S. Climate Reference Network](#)**

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**[Salem](#)**

**Office of Oceanic and Atmospheric Research (OAR) - [U.S. Climate Reference Network](#)**

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## **Statewide**

### **National Marine Fisheries Service (NMFS) and National Ocean Service (NOS) - [Damage Assessment, Remediation, and Restoration Program](#)**

NOAA's Damage Assessment, Remediation, and Restoration Program (DARRP) assesses and restores habitat, fisheries, protected species, and recreational uses that have been harmed by oil spills, chemical releases, and ship groundings. Working with federal, state, and tribal entities, and responsible parties, we have recovered funding from responsible parties for restoration of critical habitats, fisheries, protected species and recreational uses nationwide. These projects promote recovery of the ecosystem and provide economic benefits from tourism, recreation, green jobs, coastal resiliency, property values and quality of life.

### **National Ocean Service (NOS) – [Regional Geodetic Advisor](#)**

The Regional Geodetic Advisor is a National Ocean Service (NOS) employee that resides in a region and serves as a liaison between the National Geodetic Survey (NGS) and its public, academic and private sector constituents within their assigned region. NGS has a Regional Geodetic Advisor stationed in Little Rock, AR serving the Central Plains region - Arkansas, Kansas, Missouri, and Tennessee. The Geodetic Advisor provides training, guidance and assistance to constituents managing geospatial activities that are tied to the National Spatial Reference System (NSRS), the framework and coordinate system for all positioning activities in the Nation. The Geodetic Advisor serves as a subject matter expert in geodesy, the science of measuring and understanding the Earth's geometric shape, orientation in space, and gravitational field, and regional geodetic issues, collaborating internally across NOS and NOAA to ensure that all regional geospatial activities are properly referenced to the NSRS.

### **National Weather Service - [NEXRAD \(WSR-88D\) Systems](#)**

NEXRAD is used to warn the people of the United States about dangerous weather and its location. This radar technology allows meteorologists to warn the public to take shelter with more notice than ever before. The NEXRAD network provides significant improvements in severe weather and flash flood warnings, air traffic safety, flow control for air traffic, resource protection at military bases, and management of water, agriculture, forest, and snow removal. NEXRAD radar has a range of up to 250 nautical miles, and can provide information about wind speed and direction, as well as the location, size, and shape of precipitation. There are 159 operational NEXRAD radar systems deployed throughout the United States and overseas, of which three are in Missouri.

### **National Weather Service (NWS) - [Automated Surface Observing Systems Stations](#)**

The Automated Surface Observing Systems (ASOS) program is a joint effort of the National Weather Service (NWS), the Federal Aviation Administration (FAA), and the Department of Defense (DOD). ASOS serves as the Nation's primary surface weather observing network. ASOS is designed to support weather forecast activities and aviation operations and, at the same time, support the needs of the meteorological, hydrological, and climatological research communities. ASOS works non-stop, updating observations every minute, 24 hours a day, every day of the year observing basic weather elements, such as cloud cover, precipitation, wind, sea level pressure, and conditions, such as rain, snow, freezing rain, thunderstorms, and fog. There are 18 ASOS stations in Missouri.

### **National Weather Service (NWS) - [Cooperative Observer Program Sites](#)**

The National Weather Service (NWS) Cooperative Observer Program (COOP) is truly the Nation's weather and climate observing network of, by, and for the people. More than 10,000 volunteers take observations on farms, in urban and suburban areas, National Parks, seashores, and mountaintops. These data are representative of where people live, work and play.



The COOP was formally created in 1890 under the NWS Organic Act to provide observational meteorological data, usually consisting of daily maximum and minimum temperatures, snowfall, and 24-hour precipitation totals, required to define the climate of the United States and to help measure long-term climate changes, and to provide observational meteorological data in near real-time to support forecast, warning and other public service programs of the NWS. These data are also used by other federal (including the Department of Homeland Security), state and local entities, as well as private companies (such as the energy and insurance industries). In some cases, these data are used to make billions of dollars' worth of decisions. There are 235 COOP sites in Missouri.

**National Weather Service (NWS) - [NOAA Weather Radio All Hazards Transmitters](#)**

NOAA Weather Radio All Hazards (NWR) is a nationwide network of radio stations broadcasting continuous weather information directly from the nearest National Weather Service (NWS) forecast office. NWR broadcasts official NWS warnings, watches, forecasts and other hazard information 24 hours a day, 7 days a week. Working with the Federal Communication Commission's (FCC) Emergency Alert System, NWR is an "All Hazards" radio network, making it the single source for comprehensive weather and emergency information. In conjunction with federal, state, and local emergency managers and other public officials, NWR also broadcasts warning and post-event information for all types of hazards – including natural (such as earthquakes or avalanches), environmental (such as chemical releases or oil spills), and public safety (such as AMBER alerts or 911 Telephone outages). Known as the "Voice of NOAA's National Weather Service," NWR is provided as a public service by the NWS. NWR includes 1,100 transmitters covering all 50 states, adjacent coastal waters, Puerto Rico, the U.S. Virgin Islands, and the U.S. Pacific Territories. There are 35 NWR transmitters in Missouri.

**National Ocean Service (NOS) - Students for [Zero Waste Week](#)**

Students are inviting their local communities to "Go Green and Think Blue" by joining them in the annual *Students for Zero Waste Week campaign*. During this campaign led by the Office of National Marine Sanctuaries, students focus on reducing land-based waste in order to protect the health of local marine environments. These young leaders are raising awareness of how single-use plastic and other types of litter affect the health of local watersheds, national marine sanctuaries, and the ocean. In addition, some schools are looking at ways to reduce their energy use on campus with hopes of raising awareness of how the burning of fossil fuels also impacts the health of the ocean.

**NOAA Office of Education - [Environmental Literacy Program](#)**

NOAA's Environmental Literacy Program (ELP), administered by the Office of Education, provides grants and in-kind support to advance NOAA's mission through formal (K-12) and informal education. In Missouri, ELP supports the American Meteorological Society's DataStreme courses for K-12 educators through a grant and in-kind support. These courses use weather, climate, and the ocean as contexts for teaching science and improving understanding about the Earth system.

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**NOAA In Your State is managed by [NOAA's Office of Legislative and Intergovernmental Affairs](#) and maintained with information provided by NOAA's Line, Corporate, and Staff Offices. Questions about specific programs or offices should be directed to the NOAA Line, Corporate, or Staff Office listed.**

**More information for those offices may be found at [NOAA.gov](#).**

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